

Claims

1. An audio post processing method comprising the following sequenced steps:

matrix mixing an audio signal, then
decoding a surround channel of the audio signal, then
5 directing a low frequency input channel of the signal to
a low frequency effect compatible speaker,
transmitting an ambient noise containing channel of the
signal to a speaker system operable to create a three dimensional effect, then
center channel equalizing the input signal.

2. The audio post processing method according to claim 1,
further comprising matrix mixing the signal by applying a downmixing
algorithm.

3. The audio post processing method according to claim 1,
further comprising matrix mixing the signal by applying a Prologic algorithm.

4. The audio post processing method according to claim 1,
further comprising driving a centrally-located loudspeaker with a center
channel of the signal.

5. The audio post-processing method according to claim 1,
further comprising driving a plurality of loudspeakers positioned towards the
rear and to the sides of the listener with a surround channel of the signal.

6. The audio post-processing method according to claim 1,
further comprising using a bass channel of the signal to drive a low frequency
effect loudspeaker.

7. The audio post-processing method according to claim 1,
further comprising transmitting ambient noise to the plurality loudspeakers
positioned towards the rear and the sides of the listener.

8. The audio post-processing method according to claim 1,
further comprising transmitting ambient noise to a loudspeaker positioned
towards the front of a listener to create a encompassed impression therein.

9. The audio post-processing method according to claim 1,
further comprising inputting a listener preference and available equipment
status into a player console, wherein the listener preference reflects a desired
post processing effect.

10. An audio post processing method comprising the following ordered steps:

matrix mixing an audio signal, then

decoding a surround channel of the audio signal, then

5 directing low frequency input channels to a bass

compatible speaker, then

applying a headphone algorithm.

11. The audio post processing method according to claim 10, further comprising matrix mixing the signal by applying a downmixing algorithm.

12. The audio post processing method according to claim 10, further comprising matrix mixing the signal by applying a Prologic algorithm.

13. The audio post processing method according to claim 10, further comprising driving the headphone speaker with a center channel of the signal.

14. The audio post processing method according to claim 10, further comprising driving the headphone speaker with a surround channel of the signal.

15. The audio post processing method according to claim 10,
further comprising transmitting ambient noise to the headphone speaker.

16. The audio post processing method according to claim 10,
further comprising inputting a listener preference and available equipment
status into a player console, wherein the listener preference reflects a desired
post processing effect.

17. An audio post-processing system, comprising:
a plurality of decoders operable to perform the
following sequenced steps:
matrix mixing an audio signal, then
decoding a surround channel of the audio signal, then
directing a low frequency input channel of the signal to
a low frequency effect compatible speaker,
transmitting an ambient noise containing channel of the
signal to a speaker system operable to create a three dimensional effect, then
center channel equalizing the input signal;
a player console operable to receive system listener
input;

a signal source producing a signal comprised of a plurality of channels, each channel operable to drive a loudspeaker positioned at one or more of a plurality of destinations.

18. The audio post-processing system of claim 17, further comprising output amplifiers operable to drive a loudspeaker positioned at one or more of the following positions relative a listener: front, right, left and rear.

19. The audio post-processing system of claim 17, further comprising output amplifiers operable to drive a headphone speaker.

20. The audio post-processing system of claim 17, wherein said listener input reflects listener preference and the disposition of available equipment.

21. The audio post-processing system of claim 17, further comprising surround sound channel output amplifiers driving loudspeakers positioned towards the rear and toward the sides of the listener.

22. The audio post-processing system of claim 17, further comprising a center channel equalizer output amplifier driving a loudspeaker positioned towards the front and center of the listener.

23. The audio post-processing system of claim 17, further comprising a bass channel amplifier driving a low frequency effect loudspeaker.

24. The audio post-processing system of claim 17, wherein said decoders utilizes DCS techniques said to direct ambient noise channels of the audio signal to loudspeakers positioned towards the rear of the listener.

25. The audio post-processing system of claim 17, wherein said decoders utilize said VES algorithm to direct an ambient noise channel of the audio signal to loudspeakers positioned towards the front of the listener.

26. The audio post-processing system of claim 17, wherein said decoders create a center channel of the audio signal for driving a loudspeaker that is centrally located with respect to the listener.

27. The audio post-processing system of claim 17, wherein said decoders create a surround sound channel for ambient noise for driving two loudspeakers that are located to the right and left behind the listener.

28. An audio post-processing system, comprising:

a plurality of decoders operable to perform the
following sequenced steps:

matrix mixing an audio signal, then

5 decoding a surround channel of the audio signal, then

directing low frequency input channels to a bass

compatible speaker, then

applying a headphone algorithm;

a player console operable to receive system listener

10 input;

a signal source producing a signal comprised of a
plurality of channels, each channel operable to drive a loudspeaker positioned
at one or more of a plurality of destinations.

29. An audio post processing method comprising performing a
sequence selected from the group consisting of:

a) matrix mixing an audio signal and decoding a
surround channel of the signal;

5 b) matrix mixing the signal, decoding the surround
channel, and directing a low frequency input channel of the signal to a low
frequency effect compatible speaker;

c) matrix mixing the signal and directing the low frequency input channel of the signal to the low frequency effect compatible speaker;

d) matrix mixing the signal, decoding the surround channel, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, and transmitting an ambient noise containing channel of the signal to a speaker system operable to create a three dimensional effect;

e) matrix mixing the signal, decoding the surround channel, and transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect;

f) matrix mixing the signal, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, and transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect;

g) matrix mixing the signal and transmitting the ambient noise containing channel of the signal to the speaker system operable to create the three dimensional effect;

h) matrix mixing the signal, decoding the surround channel, directing the low frequency input channel of the signal to the low frequency effect compatible speaker, transmitting the ambient noise

containing channel of the signal to the speaker system operable to create the
30 three dimensional effect, and center channel equalizing the input signal;

i) matrix mixing the signal, decoding the surround
channel, and center channel equalizing the input signal;

j) matrix mixing the signal, directing the low frequency
input channel of the signal to the low frequency effect compatible speaker,
35 and center channel equalizing the input signal;

k) matrix mixing the audio signal, transmitting the
ambient noise containing channel of the signal to the speaker system operable
to create the three dimensional effect, and center channel equalizing the input
signal;

40 l) matrix mixing the audio signal, decoding the
surround channel of the signal, directing the low frequency input channel of
the signal to the low frequency effect compatible speaker, and center channel
equalizing the input signal;

m) matrix mixing the audio signal, directing the low
frequency input channel of the signal to the low frequency effect compatible
45 speaker, transmitting the ambient noise containing channel of the signal to the
speaker system operable to create the three dimensional effect, and center
channel equalizing the input signal;

n) matrix mixing and center channel equalizing the
50 signal;

FOUR SEVEN ZERO

wherein matrix mixing always precedes decoding the surround channel,
directing the low frequency input channel, transmitting the ambient noise
containing channel, and center channel equalizing the signal,

wherein decoding the surround channel of the audio

55 signal always precedes directing the low frequency input channel, transmitting
the ambient noise containing channel, and center channel equalizing the
signal,

wherein directing the low frequency input channel

always precedes transmitting the ambient noise containing channel, and center
channel equalizing the signal,

60 wherein transmitting the ambient noise containing channel always precedes
center channel equalizing the signal.